

# Mobile Optimized PTCS Registry

Amy Burke, Residential HVAC Team Program Support

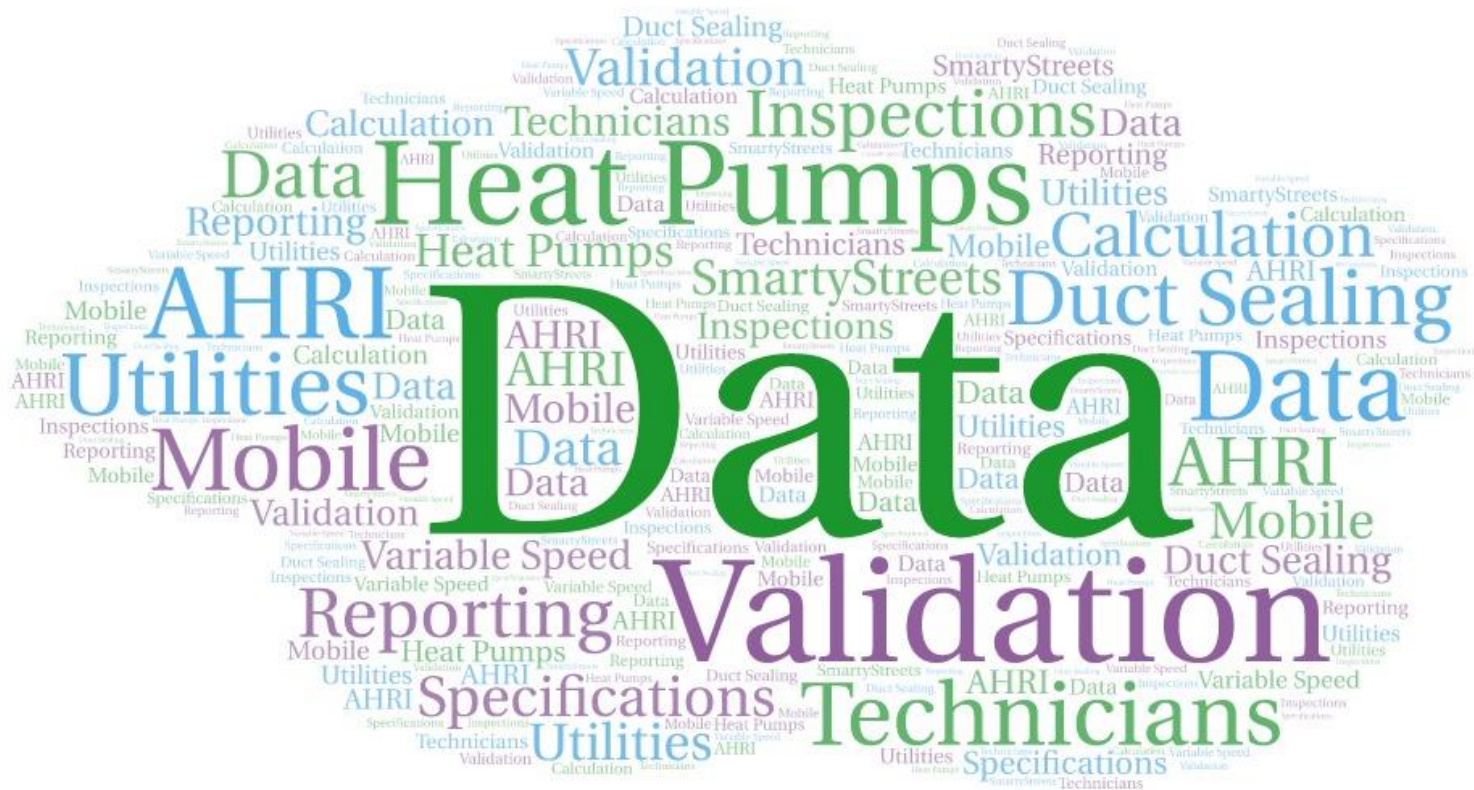
*April 26, 2018*



# Agenda



# What is the PTCS Online Registry?



# Simplify...Simplify...Simplify



External &  
Internal  
Discussions

Technician Survey  
Utility Survey

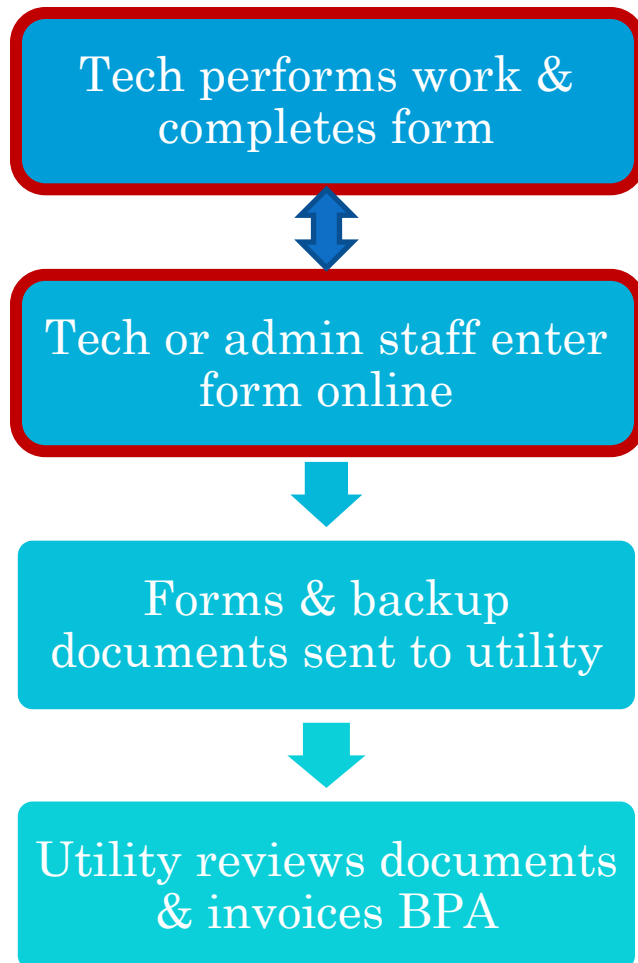
Administrative Burden  
Inconsistency in Data  
Lengthy Processing Time

Challenges

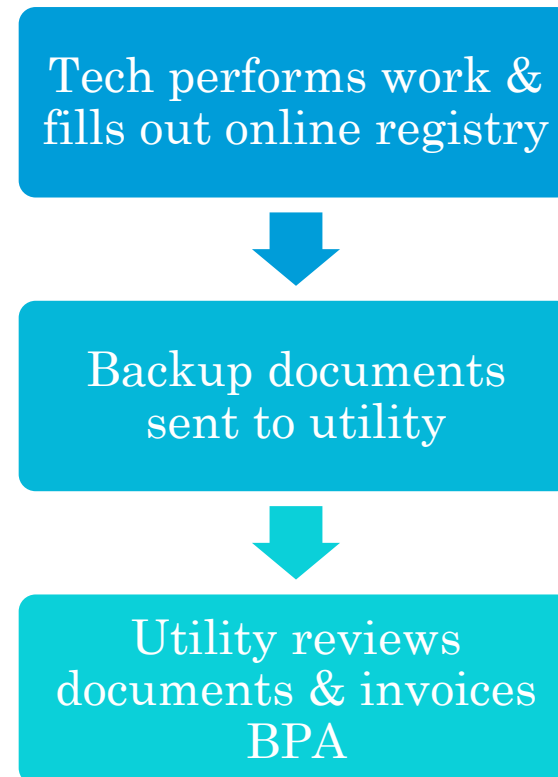


# Process Flows

*Historical...*



*New!*






# Mobile Remote Entry

- Registry interface optimized
- Use on any mobile device
- Not an app that you download
- Log in information is the same
- Look and feel the same
- Offline entry currently not available






**PERFORMANCE TESTED  
COMFORT SYSTEMS®**  
Feel the difference. Count the savings.


Welcome

**Welcome to the PTCS® and Prescriptive On-Site Registry**


Login to enter and search for PTCS Duct Sealing, Air Source and Ground Source Heat Pump, and Prescriptive Duct Sealing projects.




**Need an Install Form?**




**Get Specifications**




**Need Technical Support Materials?**



**Have a Registry Question?**



**Grow Your PTCS Business**



**Get Trained and Certified**

### Announcements:

The PTCS Registry can now be used on your mobile device

Updates were made on **Wednesday, March 28**. If you have any questions or concerns about the updates, please contact the PTCS team at [ResHVAC@bpa.gov](mailto:ResHVAC@bpa.gov) or 1-800-941-3867.

Please join us for an informational webinar on April 16. Contact the PTCS team if you would like more details.


Welcome Contractor Role [Log Out](#)

[Contractors](#) [About the Program](#) [My Account](#) [Contact Us!](#)

**Site Registry**

...s, and Prescriptive Duct

Project




**PERFORMANCE TESTED  
COMFORT SYSTEMS®**  
Feel the difference. Count the savings.

Welcome


[Register](#)

[About the Program](#)


[Contact Us!](#)




**Need an Install Form?**




**Get Specifications**




**Need Technical Support Materials?**




**Have a Registry Question?**



**Grow Your PTCS Business**



**Get Trained and Certified**



**PERFORMANCE TESTED  
COMFORT SYSTEMS®**  
Feel the difference. Count the savings.

Welcome Amy

**Site Address**

Street Address

Street Address 2

City

State

Zip Code

☐ Owner mailing address is different from site address

☐ Disable Address Verification

[Next](#)

Contact the PTCS Program:  
[ResHVAC@bpa.gov](mailto:ResHVAC@bpa.gov) | 1.800.941.3867

[Stay Informed!  
Sign Up for Our Mailing List!](#)

Hosted by the Bonneville Power Administration and sponsored by your local public utility. Version 1.0.11071.1







# Online Form Updates

- Air Source Heat Pump:
  - Test Only/Check Charge Mode
  - Return & Supply Static Pressure
  - TrueFlow Plate Location
  - Multiple Capacity Compressor Systems
  - Inform: TrueFlow Test Steps Button

TrueFlow Test Steps







# Online Entry Updates

- PTCS Duct Sealing:
  - Number of Supplies and Returns
  - Duct Insulation
  - Program specifications acknowledgement
  - Inform: Notes on Testing & Pre and Post Test Leakage Requirements Buttons

Pre-Test Leakage Requirements

Post-Test Leakage Requirements





# Online Entry Updates

- Prescriptive Duct Sealing:
  - Number of Supplies and Returns





# Electronic Acknowledgement

- Handwritten technician signature now an electronic acknowledgement
- Added to every online entry page
- Certified Tech and Admin options

## Required Acknowledgement

By checking one box below, the PTCS certified technician or administrator entering data on behalf of the certified technician acknowledges the following:

1) This project and any accompanying documentation are complete and accurate.

2) This project may be selected for a Quality Assurance (QA) inspection and any necessary remediation will be addressed in the required timeframe.

☐ **Certified Technician:** I certified the project and it meets program specifications.

☐ **I am an administrator entering on behalf of the Certified Technician.**



# Save Entry Progress



- Click “Save Progress” at the bottom
- Assigns a measure ID with “In Progress” status
- To complete later:
  - 1) Log on as installing tech
  - 2) Search for measure
  - 3) Click “Continue Job”





# A BPA Form Requirement Removed!

- No longer required by BPA; utility might require
  - Air Source Heat Pump Handwritten Form
  - PTCS Duct Sealing Handwritten Form
  - Prescriptive Duct Sealing Handwritten Form
- Exception:
  - Ground Source Heat Pump Form is not aligned due to additional data and is still required





## PTCS® Air Source Heat Pump Form (optional)

Last Updated April 2018

- 1) Enter all data on a mobile device or computer at [ptcs.bpa.gov](https://ptcs.bpa.gov) using the form can be filled out for later entry online. Issues entering data? Submit this form for entry:
  - Customers of Bonneville Power Administration (BPA) utilities: email [Residentialforms@energytrust.org](mailto:Residentialforms@energytrust.org) or call 1.800.941.3867
  - Customers of PGE or Pacific Power: email [ResHVAC@bpa.gov](mailto:ResHVAC@bpa.gov), fax to 1.877.848.4074, or call 1.800.941.3867
- 2) Submit the Registry Installation Report (found online) and additional required documents to the customer utility. Unless requested by the utility, submission of this form is not required.

### Site Information

PTCS Tech #	PTCS Tech Name	Install Date
Installation Site Address		Site City
Home Type: <input type="checkbox"/> Existing Site Built <input type="checkbox"/> New Construction Site Built <input type="checkbox"/> Manufactured		
Heated Area: _____ Sq Ft		Foundation Type (Site Built): <input type="checkbox"/> Crawlspace <input type="checkbox"/> Full Basement <input type="checkbox"/> Half Basement <input type="checkbox"/> Slab
Existing Heating System Being Replaced (If new home, indicate heating system): <input type="checkbox"/> Electric Forced Air w/out AC <input type="checkbox"/> Electric Forced Air w/ AC <input type="checkbox"/> Electric Zonal <input type="checkbox"/> Natural Gas Furnace (Gas Company: _____) <input type="checkbox"/> Natural Gas Furnace <input type="checkbox"/> Electric Forced Air <input type="checkbox"/> Electric Zonal <input type="checkbox"/> Natural Gas Furnace <input type="checkbox"/> Non-Electric Space Heating		

### New Heat Pump Equipment Data

AHRI #	SEER*
Heat Pump Make	Outdoor HP Model #
	Indoor HP Model #

Did you perform all of your tests in Test Only?

### External Static Pressure Test

1. Measure return static pressure
2. Measure supply plenum static pressure
3. Calculate external static pressure: add values in #1 and #2 values; ignore the minus sign

### TrueFlow Test

1. Measure NSOP (Normal System Operating Pressure) [A]
2. Check TrueFlow plate size and location
3. Measure TFSP (Supply Pressure with TrueFlow plate) [B]
4. Calculate Correction Factor [C]
5. Measure plate pressure
6. Enter Raw Flow CFM from tables [D]
7. Calculate Corrected Flow
8. Calculate CFM/ton



## Prescriptive Duct Sealing Form (optional)

Last Updated April 2018

- 1) Enter all data on a mobile device or computer at [ptcs.bpa.gov](https://ptcs.bpa.gov) using the certified technician's account. This optional form can be filled out for later entry online. Issues entering data? Submit this form for entry:
  - Customers of Bonneville Power Administration (BPA) utilities: email [ResHVAC@bpa.gov](mailto:ResHVAC@bpa.gov), fax to 1.877.848.4074, or call 1.800.941.3867
  - Customers of PGE or Pacific Power: email [Residentialforms@energytrust.org](mailto:Residentialforms@energytrust.org) or call 1.866.365.3526
- 2) Submit the Registry Installation Report (found online) and additional required documents to the customer utility. Unless requested by the utility, submission of this form is not required.

### Site Information

PTCS Tech #	PTCS Tech Name	Install Date	Electric Utility
Installation Site Address		Site City	Site State
Home Type: <input type="checkbox"/> Existing Site Built <input type="checkbox"/> Manufactured: # of Sections <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3		Heated Area: _____ Sq Ft	
Foundation Type (Site Built): <input type="checkbox"/> Crawlspace <input type="checkbox"/> Full Basement <input type="checkbox"/> Half Basement <input type="checkbox"/> Slab			
Existing Heating System: <input type="checkbox"/> Electric Forced Air w/out AC <input type="checkbox"/> Electric Forced Air w/ AC <input type="checkbox"/> Electric Zonal <input type="checkbox"/> Air Source Heat Pump <input type="checkbox"/> Ground Source Heat Pump <input type="checkbox"/> Natural Gas Furnace (Gas Company: _____) <input type="checkbox"/> Other Non-Electric Space Heating: Back up Heat: <input type="checkbox"/> None <input type="checkbox"/> Electric Forced Air <input type="checkbox"/> Electric Zonal <input type="checkbox"/> Natural Gas Furnace <input type="checkbox"/> Non-Electric Space Heating			
Type of Ducts Sealed: Select one <input type="checkbox"/> Seal Existing Ducts <input type="checkbox"/> New Ducts		# Supply	# Returns
Location of Duct Work. Ducts are considered to be in unconditioned space when they are in vented crawlspaces, attics, and unheated garages. Basements are considered conditioned space. Bellies of manufactured homes are considered accessible.			
Qualifying Characteristic: Select one: <input type="checkbox"/> At least 30% of the supply ducts are in unconditioned space and accessible, OR <input type="checkbox"/> There are high operating pressure leaks in unconditioned space (i.e. plenum).			

### Installation Checklist

All work must be completed to the Prescriptive Duct Sealing Specification found at [bpa.gov/gato/resvhac](https://bpa.gov/gato/resvhac).

#### Duct Repair

- Select all issues that apply: ☐ No repairs done ☐ Large gaps in sheet metal ☐ Rusty portions ☐ Missing sections
- Metal Ducts connections: ☐ No metal ducts present OR ☐ All are fastened (e.g. 3 metal screws at each connection where required)
- Flex Ducts connections: ☐ No flex ducts present OR ☐ All flex ducts are joined to a section of rigid duct of matching diameter
- Flex Duct liners: ☐ No flex ducts present OR ☐ Interior and exterior liners of flex duct connections are secured

#### Duct Support and Connections

- Duct support: ☐ Ducts did not require support OR ☐ Duct supports were added
- Ground contact: ☐ Ducts do not contact ground OR ☐ Closed-cell rigid insulation is under the ducts to prevent contact
- Boots are mechanically fastened to the subfloor or respective surface: ☐ Y ☐ N If no, status will result in a rejection.

#### Duct Sealing

All accessible portions of the duct which require sealing are sealed with approved materials. This includes pulling insulation off where opportunities exist. Examples: Plenum; Air-handler cabinet to plenum; Plenum-to-take-off connections; Finger/dovetail joints; Branch T's, Y's and L's; Duct-to-duct connections; and Gores on adjustable elbows. ☐ Y ☐ N

- Return was (select one): ☐ Sealed OR ☐ In conditioned space and not sealed OR ☐ Not accessible and not sealed OR ☐ Was not sealed but is accessible



## PTCS® Duct Sealing Form (optional)

Last Updated April 2018

- 1) Enter all data on a mobile device or computer at [ptcs.bpa.gov](https://ptcs.bpa.gov) using the certified technician's account. This optional form can be filled out for later entry online. Issues entering data? Submit this form for entry:
  - Customers of Bonneville Power Administration (BPA) utilities: email [ResHVAC@bpa.gov](mailto:ResHVAC@bpa.gov), fax to 1.877.848.4074, or call 1.800.941.3867
  - Customers of PGE or Pacific Power: email [Residentialforms@energytrust.org](mailto:Residentialforms@energytrust.org) or call 1.866.365.3526

Unless requested by the utility, submission of this form is not required.

Install Date	Electric Utility
Site City	Site State
Site Zip	Heated Area: _____ Sq Ft
Home Type: <input type="checkbox"/> Existing Site Built <input type="checkbox"/> Manufactured: # of Sections <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3	
Foundation Type (Site Built): <input type="checkbox"/> Crawlspace <input type="checkbox"/> Full Basement <input type="checkbox"/> Half Basement <input type="checkbox"/> Slab	
Existing Heating System: <input type="checkbox"/> Electric Zonal <input type="checkbox"/> Air Source Heat Pump <input type="checkbox"/> Ground Source Heat Pump <input type="checkbox"/> Other Non-Electric Space Heating: Natural Gas Furnace <input type="checkbox"/> Non-Electric Space Heating when they are in vented crawlspaces, attics, and unheated garages. If no, home does not qualify for duct sealing. Back up Heat: <input type="checkbox"/> None <input type="checkbox"/> Electric Forced Air <input type="checkbox"/> Electric Zonal <input type="checkbox"/> Natural Gas Furnace <input type="checkbox"/> Non-Electric Space Heating	
Type of Ducts Sealed: Select one <input type="checkbox"/> Seal Existing Ducts <input type="checkbox"/> New Ducts	# Supply
# Returns	
Location of Duct Work. Ducts are considered to be in unconditioned space when they are in vented crawlspaces, attics, and unheated garages. Basements are considered conditioned space. Bellies of manufactured homes are considered accessible.	
Qualifying Characteristic: Select one: <input type="checkbox"/> At least 30% of the supply ducts are in unconditioned space and accessible, OR <input type="checkbox"/> There are high operating pressure leaks in unconditioned space (i.e. plenum).	

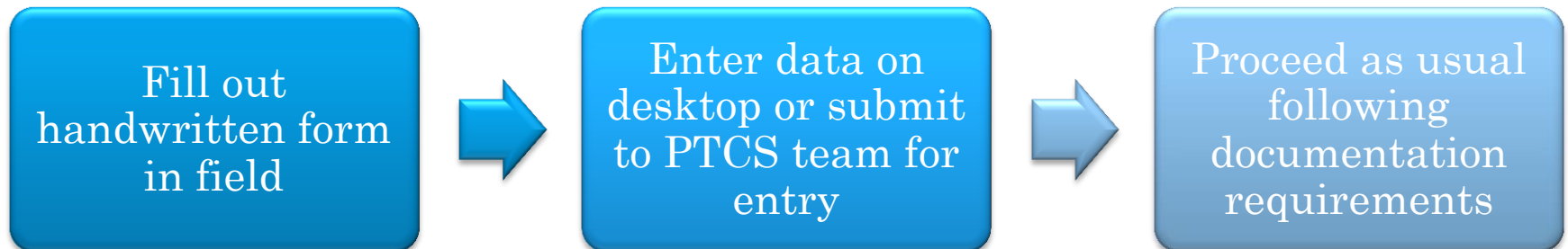


# *Can't Enter on a Mobile Device?*

No access to WiFi/internet

No smart mobile device

Address or AHRI number not verified







## Updates to Forms

- Removed: Homeowner name, contact information, & signature
- Optional handwritten forms available to record data offline



# Registry Installation Report

**PTCS Heat Pump #1786054**

<u>Site Address</u>	<u>Owner Address</u>
999 TEST AVENUE Portland, OR 99999	999 TEST AVENUE Portland, OR 99999

Site Info	
Heated Area	2000
House Type	EXIST
Existing Heating System Type Being Replaced	Electric Forced Air w/out AC
Foundation Type	Crawlspace
Backup Heat System Type	None

Utility	
Electricity	Rocky Mountain Power

Technician	
Technician Name: <a href="#">Burke, Amy</a>	
PTCS ID: 10458	

Company	
Company: <a href="#">Bonneville Power Administration</a>	
Portland, OR	

Measure	
Service Date: 5/1/2017	
Entered Date: 5/4/2017	

Processing Notes
------------------

- Required document
- Found online
- Updated with new data points (exception: Ground Source HP)
- Electronic acknowledgement added
- Displays audit trail if data was edited



# Searching for Jobs

*Note: your permissions control what jobs you can access*

**Measure Installed:** between  and

**Measure Entered:** between  and

**Measure ID:**

**Status:**   
select or deselect items)  
 Audit  
 BPA Approved  
 BPA Pending

**Address:**   \*To broaden results, omit directional words (i.e. NW, Southwest) or street types (i.e. Rd, Street)

**Address Line 2:**

**City:**

**Tech ID:**

**Company Name:**

**Measure Type:**

**Utility:**   
select or deselect items)  
 Alder Mutual Light Company  
 APS (Arizona Power Supply)  
 Ashland, City of  
 Asotin County PUD No. 1

- 1) Click “Search for Project” or “Completed Jobs” from the homepage
- 2) Be concise with search criteria



# Finding the Registry Installation Report

Click on the measure ID for the report.

Measure ID	Measure Type
1234 test st 20170614 portland, OR	
<a href="#">Edit Measure</a> <a href="#">View History</a>	<a href="#">1786994</a> PTCS Duct Seal

**PTCS Duct Seal #1786994**

<u>Site Address</u> 1234 test st 20170614 portland, OR 99999	<u>Owner Address</u> 1234 test st 20170614 portland, OR 99999
<b>Site Info</b>	
Heated Area House Type Existing Heating System Type Being Replaced Foundation Type Backup Heat System Type	2000 EXIST Electric Forced Air w/out AC Crawlspace None
<b>Utility</b>	
Electricity	Rocky Mountain Power
<b>Technician</b>	
Technician Name: <a href="#">Burke, Amy</a> PTCS ID: 10458	
<b>Company</b>	
Company: <a href="#">Bonneville Power Administration</a> Portland, OR	
<b>Measure</b>	
Service Date: 6/1/2017 Entered Date: 6/14/2017 CAZ Present: False CO Monitor Present: False Duct Seal Type: Seal Existing Ducts	





## BPA's Documentation Requirements

*Please check with the customer utility for additional documentation requirements.*

- Registry Installation Report
- Equipment/Contractor Invoice
- Documentation of Sizing (Air Source & Ground Source Heat Pumps)
- Loop Design (Ground Source Heat Pumps)
- Handwritten form (Ground Source Heat Pumps)





Account owner...

Enter a Project...

Search for a Project...

Find a form...

Find a technical  
reference...

Marketing materials...

# Navigating

PERFORMANCE TESTED  
**COMFORT SYSTEMS®**  
Feel the difference. Count the savings.

Welcome Contractor Role

Welcome to the PTCS® and Prescriptive Online Site Registry

Login to enter and search for PTCS Duct Sealing, Air Source and Ground Source Heat Pumps, and Prescriptive Duct Sealing projects.

Enter a Project

Search for Project

Need an Install Form?

Get Specifications

Need Technical Support Materials?

Have a Registry Question?

Grow Your PTCS Business

Get Trained and Certified

Announcements:

The PTCS Registry can now be used on your mobile device with internet access!

Click to get back home!

Click for the menu

All specifications...

Registry Info...

Training Info...

Periodic  
announcements...





# Summary: Form Updates

	Air Source Heat Pump	PTCS & Prescriptive Duct Sealing	Ground Source Heat Pump
Handwritten form required by BPA			<b>X</b>
Not Required (Optional*)	<b>X</b>	<b>X</b>	
Form fields aligned with online registry	<b>X</b>	<b>X</b>	
Homeowner name & contact info removed	<b>X</b>	<b>X</b>	<b>X</b>
Homeowner signature removed	<b>X</b>	<b>X</b>	<b>X</b>
Technician Signature removed (electronic acknowledgement)	<b>X</b>	<b>X</b>	<b>X</b>
Registry Installation Report Required	<b>X</b>	<b>X</b>	<b>X</b>

\*Use if no access to mobile device, WiFi/internet, or data cannot be entered.





## Contact us to Troubleshoot...

- Address isn't validating
- AHRI number isn't validating
- Enter in a 2<sup>nd</sup> system
- Unsure of a status
- Can't locate an entered job
- Edit an address or data
- Need review of "Pending" entry





- Registry optimized for mobile devices with internet access
- Offline access not currently available
- Look and feel unchanged
- E-signature added
- BPA document requirements changed



# Questions?

Contact the ResHVAC Team:

*[ResHVAC@bpa.gov](mailto:ResHVAC@bpa.gov)*

*1.800.941.3867*

